2000 operations per second. Of the internal memory devices the basic one is electrostatic, consisting of cathode-ray tubes of the 13L037 type, for 512 numbers; the access time is 25 μsec; the auxiliary consists of a magnetic drum for 512 numbers; the speed of rotation is 2860 rpm. The external memory device consists of a magnetic tape with a capacity of 50,000 numbers; its length is 600 m and speed 0.4 m/sec. The data is fed in on perforated paper tape at the rate of about 30 numbers per sec. The decoding of data is in tabular form, the printing speed is 24 numbers per min. The power supply is from a 3-phase a-c metwprl 127/220-v, the power intake is 29 kw. The area covered by the computer is 22 sq. m. The total number of tubes is 1879, of which 1676 are used in the computer itself and 203 in the power supply. The types and numbers of tubes used in every unit are given in Appendix 2. The personnel consists of two people per shift. The cost of building the computer was about one million rubles, and the cost of 24-hr operation is 16,000 to 18,000 rubles per month. The various stages of development of the M-2 involved

the following engineers: M.A. Kartsev, V.V. Belinskiy and A.B. Zalkind, who developed the arithmetic unit; the electrostatic memory device was developed by T.M.Aleksandridi and Yu.A. Lavrenyuk; control devices by L.S. Legezo, V.D. Knyazev and G.I. Tanetov; magnetic memory devices by A.I. Shchurov and L.S. Legezo; input and output devices by A.B. Zalkind; the power supply system by V.V. Belynskiy, Y.A. Lavrenyuk and V.D. Knyazev; the control panel by V.V. Belynskiy and A.I. Shchurov. The design work was supervised by M.A. Kartsev. The following laboratory constructors, technicians, mechanics and assemblymen also worked on the project; I.Z. Gel'fgat, A.D. Grechushkin, N.A. Nemtsev, F.F. Rzheutskiy, I.K. Shvil'pe, D.U. Yermochenkov, L.I. Fedorov, and G.I. Korostylev. The following persons collaborated in the writing of the book: M.A. Kartsev (Chapters I to VI and XI), I.M. Aleksandridi (Chapter VII), V.D. Knyazev (Chapters II, III, VII and IX), V.P. Kuznetsova (Chapter XII), Yu. A. Lavrenyuk (Chapters V and VII), G.I. Tanetov (Chapters VI, IX and XIII), A.I. Shchurov (Chapter VIII), N.P. Brusentsov (Chapters VIII, IX, XIV) and L.S. Legezo (Chapter X).

Card 4/13

LEGEZO, L.S.

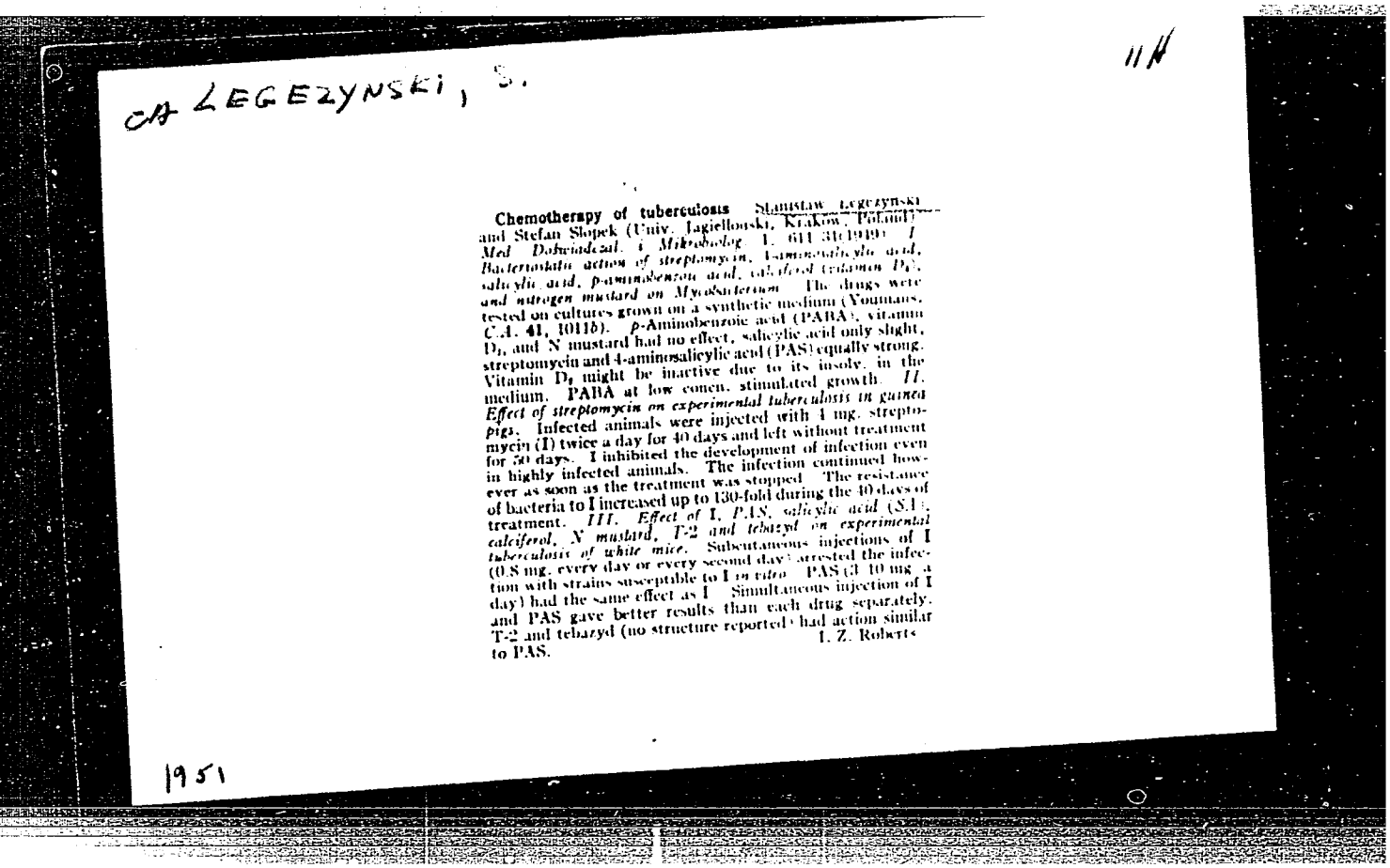
Using computing equipment in controlling production processes.
Biul.tekh.-ekon.inform. no.11:88-92 '61. (MIRA 14:12)
(Electronic calculating machines) (Automation)

LEGEZYNSKI S. and SLOPEK S. Z Zakladu Mikrobiologii Lekarskiej U.J. w Krakowie. Dalsze badania nad zastosowaniem metody Habela do okreslania wartosci uodporniajacej szczepionek przeciw wsciekliznie. Doniesienie II Further inbestigations on the use of Habel's method for determination of the immunizing value of rabies vaccine. II. Medycyna Doswiadczalna i Mikrobiologia, Warsaw 1949, 1/2 (193-199) Tables 3

Habel's method for determining the immunizing value of rabies vaccine give good results to the authors. Nine samples of rabies vaccine prepared according to the methods of Semples and Umeno-Doi were investigated using the Reed and Muench modification. The paper also includes technical details of the above-mentioned methods.

Kurylowicz - Warsaw

So: Medical Microbiology and Hygiene, Section IV, Vol 3, No 1-6



CA LEGEZYNSKI, S.

11H

Chemotherapy of tuberculosis. Stanisław Legezyński and Stefan Slopek (Univ. Jagiellonski, Kraków, Poland). *Med. Doświadczal. i Mikrobiolog.* 1, 611-31(1949). *I. Bacteriostatic action of streptomycin, 4-aminosalicylic acid, salicylic acid, p-aminobenzoic acid, calciferol (vitamin D_2), and nitrogen mustard on Mycobacterium.* The drugs were tested on cultures grown on a synthetic medium (Youmans, *C.A.* **41**, 1011b). *p*-Aminobenzoic acid (PABA), vitamin D_2, and N mustard had no effect, salicylic acid only slight, streptomycin and 4-aminosalicylic acid (PAS) equally strong. Vitamin D_2 might be inactive due to its insolv. in the medium. PABA at low concn. stimulated growth. *II. Effect of streptomycin on experimental tuberculosis in guinea pigs.* Infected animals were injected with 4 mg. streptomycin (I) twice a day for 40 days and left without treatment for 50 days. I inhibited the development of infection even in highly infected animals. The infection continued however as soon as the treatment was stopped. The resistance of bacteria to I increased up to 130-fold during the 40 days of treatment. *III. Effect of I, PAS, salicylic acid (SA), calciferol, N mustard, T-2 and tebazyd on experimental tuberculosis of white mice.* Subcutaneous injections of I (0.8 mg. every day or every second day) arrested the infection with strains susceptible to I *in vitro*. PAS (3.10 mg. a day) had the same effect as I. Simultaneous injection of I and PAS gave better results than each drug separately. T-2 and tebazyd (no structure reported) had action similar to PAS.

I. Z. Roberts

1951

LEGEZYNSKI, S.; SLOPEK, S.

Effect of streptomycin on the course of experimental tuberculosis in the guinea pig. Med.dosw.Mikrob. 2 no.2:229 1950. (CIML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Krakow.)

LEGEZYNSKI, S.; SLOPEK, S.

Effect of streptomycin, PAS, salicylic acid, calciferol and nitrogranulogen on experimental tuberculosis in white mice. Med. dosw. Mikrob. 2 no.2:230 1950. (CIML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Krakow.)

LEGEZYNSKI, S.

Experimental investigations on the effects of nitrogen mustards. Med.dosw.Mikrob. 2 no.2:244-245, 1950. (CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Krakow.)

LEGEZYNSKI, S.; SLOPEK, S.

Evaluation of Habel's method in the light of own research. Med.dosw. Mikrob. 2 no.2:305-306 1950. (CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept. 1949. (Krakow.)

CHODOROWSKI, E.; LEGEZYNSKI, S.

Epidemiology of the last peidemic of influenza. Med. dosw. mikrob., Warsz. 4 no. 3:400-401 1952. (CIML 23:3)

1. Summary of work progress presented at 11th Congress of Polish Microbiologists held in Krakow May 1951. 2. Krakow.

LEGEZYNSKI, S.; MACHNICKI, S.

Diagnosis of gonorrhea in women by the antigen method. Polski tygod. lek. 7 no. 45:1475-1476 10 Nov 1952. (CLML 24:1)

1. Of the Institute of Medical Microbiology (Head--Prof. Stanislaw Legezynski, M.D.) and of the Third Department of the Clinical Hospital, Krakow Medical Academy.

LEGEZYNSKI, S.;SZAFLARSKI, J.

Studies on serological relationship between Heine-Medin and Teschen diseases. Med. dosw. mikrob. 5 no.2:265-275 1953. (CIML 25:1)

1. Of the Institute of Microbiology of Bialystok Medical Academy and of Katowice Regional Institute of Veterinary Hygiene.

LEGEZYNSKI, S., prof. dr.; STASIEWICZ, W., dr.

Role of analytic- bacteriologic laboratory in physician's work in rural areas. Zdrowie pub., Warsz. no.5:395-399 Sept-Oct 54.

1. Z Zakladu Mikrobiologii Lekarskiej A.M.Bialystok.
(LABORATORIES, MEDICAL,
bacteriol., role in physician's work in rural areas)
(PHYSICIANS,
rural, importance of bacteriol. laboratory)

LEGEZYNSKI, Stanislaw; SZAFLARSKI, Jerzy

Attempted cross immunization of mice with poliomyelitis Lansing and Teschen disease viruses. Med. dosw. mikrob. 6 no.4:367-373 1954.

1. Z Zakladu Mikrobiologii Akademii Medycznej w Bialymstoku i z Wojewodzkiego Zakladu Higieny Weterynaryjnej w Stalinogrodzie.

(POLIOMYELITIS, immunology,
vacc., cross immun. of mice with polio. & Teschen dis. vacc.)
(ENCEPHALOMYELITIS,
Teschen dis., cross immun. of mice with polio & Teschen dis. vacc.)
(VACCINES AND VACCINATION,
polio. & Teschen dis. cross immun. of mice)

LEGEZYNSKI, Stanislaw; SZAFLORSKI, Jerzy

Duration of immunizing properties of vaccines prepared from Lansing strain. Med. dosw. mikrob. 6 no.4:375-379 1954.

1. Z Zakladu Mikrobiologii Akademii Medycznej w Biolymstoku i z Wojewodzkiego Zakladu Higieny Weterynryjnej w Stalinogradzie.

(VACCINES AND VACCINATION,
polio duration of immun. properties of vacc. from Lansing varus)
(POLIOMYELITIS, immunity,
vacc., duration of immun. properties of vacc. from Lansing virus)

Voivodship (County) Lab. of Veterinary Hygiene in Stalinogrod

LEGEZYŃSKI S.

EXCERPTA MEDICA Sec.4 Vol.9/11 Microbiology Nov 55

3127. LEGEZYŃSKI S. and PŁATAKIS J. Zakł. Mikrobiol. wydziału Lekarsk. Akad. med. i Centr. wojewódzkiej Poradni skórno-wenerol., Białystok. "Odczyn antygenowy a rzeżączce u kobiet. The antigen reaction in female gonorrhoea POL. TYG. LEK. 1954, 9 1 (97-101 and 27 1 Tables 4

The authors describe a personal method of antigen reaction used in the diagnosis of gonorrhoea. A sample of the secretion from the uterine cervix was not damaged after a few days' preservation; accordingly the reaction may be made in distant laboratories. The reaction consists in ascertaining the antigen substance of gonococcus with the anti-gonorrhoeal serum in the complement-fixation reaction. The material consisted of 290 patients in whom 579 antigen tests were made. The reaction was verified by clinical observations, repeated microscopic examinations and serological blood tests. The reaction is regarded as specific, more sensitive than the bacterioscopic method and especially useful in mass examinations for gonorrhoea.

From authors' summary (IV, 10, 13)

LEGEZYNSKI, Stanislaw; RATOMSKI, Aleksander

Relation of preservation time to immunizing value of rabies vaccine of the Polish Institute of Veterinary Medicine. Med. dosw. mikrob. 9 no.4:395-401 1957.

1. Z Zakladu Mikrobiologii Lekarskiej A. M. w Bialymstoku. Kierownik: prof. S. Legezynski i Woj. Zakladu Higieny Weterynaryjnej w Krakowie. Kierownik: doc. A. Ratomski.
(RABIES, immunology,
vaccine, relation of preserv. time to immun. value (Pol))

BORON, Piotr; LEGEZYNSKI, Stanislaw; RUDKOWSKI, Alfons

Complement fixation reaction with liver antigens in patients with viral hepatitis. Pol. arch. med. wewnet. 34 no.10: 1297-1303 '64

1. Z Zakladu Mikrobiologii Lekarskiej Akademii Medycznej w Bialymstoku (Kierownik: prof. dr. n. med. S. Legezynski) i z Kliniki Chorob Zakaznych AMB (Kierownik: doc. dr. med. P. Boron).

LEGGETT, D.M.A.

YUGO. √ MS

Leggett, D. M. A. The buckling of thin cylindrical shells under axial compression. Acad. Serbe Sci. Publ. Inst. Math. 7, 47–60 (1954).

The author extends the theory of Karman and Tsien by minimizing the strain energy with respect to four parameters instead of just two. The resulting load-overall strain curve may contain discontinuities of the load where the energies of two possible modes of distortion, corresponding to different numbers of circumferential buckles, are equal: the mode actually adopted being that with the least energy at each strain point. *D. R. Bland* (London).

TsF/M

PRUSZCZYNSKI, Aleksandr; PAWLOWSKI, Lech; LEGIEWSKI, Aleksander; BIERNAT, Stanislaw

Some statistical data concerning arteriosclerosis and myocardial infarction with special reference to the age, sex and co-existing diseases according to autopsy studies performed during 1950-1959 in the Institute of Pathological Anatomy of the Academy of Medicine in Lodz. Postepy hig. med. dosw. 15 no.6:727-732 '61.

1. Z Zakladu Anatomii Patologicznej AM w Lodzi Kierownik: prof. dr. A.Pruszczynski.
(CORONARY DISEASE statist) (MYOCARDIAL INFARCT statist)

LEGIEWSKI, Aleksander

Aneurysm of the superior mesenteric artery with perforation of the small intestine and fatal hemorrhage in endocarditis. Pat. pol. 14 no.3:393-397 '63.

1. Z Katedry i Zakladu Anatomii Patologicznej WAM Kierownik: prof. dr med. A. Pruszczynski Ze Szpitala Powiatowego w Leczycy Dyrektor: dr med. Z. Jablkowski Ordynator: dr med. T. Slubowski.

(ENDOCARDITIS) (MESENTERIC ARTERIES)
(ANEURYSM) (INTESTINAL PERFORATION)
(ILEUM) (HEMORRHAGE, GASTROINTESTINAL)

KALISZEWICZ, Seweryn; TORZECKA, Wieslawa; RATAJCZYK, Ewa; LEGIEWSKI, A.

Simultaneous rupture of the cardiac septum and wall during the course of infarction. Polski tygod. lek. 16 no.45:1749-1752 6 N '61.

1. Z I Kliniki Chorob Wewnetrznych A.M., kier. prof. dr n. med. J. W. Grott i z Zakladu Anatomii Patologicznej W.A.M.: kier.: prof: dr med. Al. Pruszczynski.

(MYOCARDIAL INFARCT compl) (HEART SEPTUM dis)

LEGIEWSKI, Aleksander; JANUSZEWSKI, Marian

Eosinophilic granuloma of the cecum and ascending colon (so-called eosinophilic fibroma). Pat. pol. 15 no.2: 263-268 Ap-Je '64

1. Z Katedry i Zakładu Anatomii Patologicznej Wojskowej Akademii Medycznej w Łodzi (Kierownik: prof. dr. med. A. Pruszczynski) i z I Kliniki Chirurgicznej Wojskowej Akademii Medycznej w Łodzi (Kierownik: doc. dr. med. J. Pruszynski).

LEGIN, G.Ya.; OKHLOBYSTINA, L.V.; FAYNZIL'BERG, A.A.

Preparation of individual dinitromethane and its physical properties. Izv.AN SSSR.Ser.khim. no.12:2220-2221 '65.
(MIRA 18:12)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
Submitted April 26, 1965.

STARIK, I.Ye.; KUZNETSOV, Yu.V.; LEGIN, V.K.

Forms in which uranium and thorium are found in bottom deposits of the Antarctic Ocean. Radiokhimiia 1 no.3:321-324 '59. (MIRA 12:10)

(Uranium) (Thorium) (Antarctic Ocean--Deep sea deposits)

~~5(0)~~

AUTHORS: Starik, I. Ye., Corresponding Member, AS USSR, Kuznetsov, Yu.V., Nikolayev, D. S., Legin, V. K., Lazarev, K. F., Grashchenko, S. M., Kolyadin, L. B.

SOV/20-129-5-50/64

TITLE: Distribution of Radio Elements in the Sediments of the Black Sea

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 5, pp 1142-1145 (USSR)

ABSTRACT: The radioactivity of the sediments in the enclosed seas is almost uninvestigated. The Black Sea shows characteristic hydrological and hydrochemical conditions. It is also intensively fed with sedimentary material. For this reason its sedimentation strongly differs from that in large oceanic waters (Ref 5). In this connection the authors wanted to explain the influence of these specific conditions on the sedimentation and on the type of distribution of the radio elements in the Black Sea bottom sediments. The results achieved are not sufficient to draw final conclusions. For this reason only some assumptions are expressed. The authors studied the vertical distribution of uranium, radium, ionium, thorium, iron, and calcium in a sediment core which was taken from the central part of the Black Sea from a depth of 2137 m. It was 227 cm long and consisted mainly of gray homogeneous clay with 5 intermediate sand strata. The upper 18 cm

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consisted of extremely fine-disperse mud with thin sapropel intermediate strata. Figure 1 shows the vertical distribution of the above-mentioned elements in the core. Table 1 gives the corresponding figures. From these data it may be concluded that in the upper horizons of the core the radioactive equilibrium in the uranium series is widely disturbed: the ionium content is almost 4 times higher than the amount corresponding to the equilibrium with uranium; the radium content, however, constitutes only 1/4 of this amount. The radium content in the water of the Black Sea is only 15% of the equilibrium value of uranium dissolved in the water. Thus the radium content in the sediment is hardly one fourth of the amount which should be measured if 85% of the radium were sedimentated from the water. Assuming that no radium migration takes place in the cores of marine sediments (Ref 1) the discrepancy in the radium balance in the water and in the sediment of the Black Sea may be explained by radium leaching from the sediment in its upper layers. On the other hand, the upper horizons are considerably enriched with ionium and uranium. Their content decreases downwards to 42-48 cm rapidly and then practically remains constant. According to N. M. Strakhov more than 50% of $CaCO_3$ were sedimentated by chemical

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Distribution of Radio Elements in the Sediments of the Black Sea

methods. The main bulk of iron, however, is transported into the deep-seated sediments with the river water. The authors conclude therefrom that the vertical $CaCO_3$-distribution reflects the change of the chemical conditions in the course of time. Since the vertical distribution of ionium and uranium agrees with that of $CaCO_3$ it indicates that the main amount of ionium and uranium was separated from the solution. On the other hand it may be concluded from the parallel change in the thorium content with that of iron that the major part of thorium is of terrigenous origin. The authors calculated the rate of sedimentation in the Black Sea from the data from table 1. It is 12-13 cm within thousand years. If it is however assumed that in the horizon 100-106 cm the equilibrium between ionium and uranium is still attained (Fig 2) the rate of sedimentation is only 0.4-0.5 cm per 1000 years. The problem as to which of the two values is correct has hitherto not been definitely solved. There are 2 figures, 1 table, and 6 references, 4 of which are Soviet.

SUBMITTED: August 25, 1959

Card 3/3

GRASHCHENKO, S.M.; KUZNETSOV, Yu.V.; LAZAREV, K.F.; LEGIN, V.K.; NIKOLAYEV, D.S.

Concerning the article by V.I. Baranov and L.A. Khristianova "Radioactivity of waters in the Indian Ocean." Geokhimiia no.7:650-651 '60. (MIRA 13:11)

(Indian Ocean--Radioactive substances)
(Baranov, V.I.)
(Khristianova, L.A.)

STARIK, I.Ye.; NIKOLAYEV, D.S.; KUZNETSOV, Yu.V.; LEGIN, V.K.

Radioactivity of sediments in the Black Sea. Dokl. AN SSSR 139 no.6:1456-1459 Ag '61. (MIRA 14:8)

1. Chlen-korrespondent AN SSSR (for Starik).
(Black Sea--Sedimentation and deposition)
(Radioactive substances)

STARIK, I.Ye.; [illegible], Yu.V.; [illegible], V.[illegible]; SINCOVA, T.N.

Certain characteristics of radioionium dating. Radiokhimiia 3 no.4:490-497 '61. (MIRA 14:7)
(Thorium—Isotopes)

STARIK, I.Ye.; NIKOLAYEV, D.S.; KUZNETSOV, Yu.V.; LEGIN, V.K.

Relationship between the radioactivity of sediments in the Sea of Azov and the Black Sea. Dokl. AN SSSR 139 no.2:456-459 Jl '61. (MIRA 14:7)

1. Chlen-korrespondent AN SSSR (for Starik).
(Azov, Sea of--Radioactive substances)
(Black Sea--Radioactive substances)
(Deep-sea deposits)

LEGIN, V. K.

I. Ye. STARIK, Yu. V. KUZNETSOV, Ye.P. PETRYAYEV, V.K. LEGIN (USSR)

"Some problems of the geochemistry of radioactive isotopes."

Report presented at the Conference on Chemistry of the Earth's Crust, Moscow, 14-19 Mar 63.

KUZNETSOV, Yu.V.; LEGIN, V.K.; SIMONYAK, Z.N.

Determination of ultrasmall quantities of uranium, radium, and thorium isotopes in silicate materials taken from the same batch. Radiokhimiia 5 no.2:189-197 '63. (MIRA 16:10)

KUZNETSOV, Yu.V.; LEGIN, V.K.; LISITSYN, A.P.; SIMONYAK, Z.N.

Radioactivity of ocean suspensions. Part 1: Thorium isotopes in ocean suspensions. Radiokhimiia 6 no.2:242-254 '64.
(MIRA 17:6)

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S/020/60/135/003/034/039
B004/B060

11.1190

AUTHORS: Vdovenko, V. M., Corresponding Member of the AS USSR, Legin, Ye. K., Stebunov, O. B., and Shcherbakov, V. A.

TITLE: Relaxation of Protons in Hydrogen Peroxide Solutions Irradiated With Ultraviolet Light

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 3, pp. 645 - 647

TEXT: The present paper deals with the problem of reducing the relaxation time T_1 of protons in aqueous solutions by the effect of ionizing radiation. As a special case, they report on their measurements of T_1 in H_2O_2, where chain reactions take place under the action of ultraviolet light. Initial 30% H_2O_2 was concentrated at 15 - 20 mm Hg. Tests were conducted in quartz ampoules at room temperature. The radiation source was a PRK-2 (PRK-2) lamp. Fig.1 shows the ratio between relaxation signal A in irradiated H_2O_2 of varying concentration and signal A_0 in non-irradiated H_2O_2

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Relaxation of Protons in Hydrogen Peroxide Solutions Irradiated With Ultraviolet Light

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as a function of time (min). The curves tend toward saturation. The effect of paramagnetism of free radicals should vanish because of their short lifetime, immediately after illumination is stopped. The authors, however, observed an effect persisting for hours. Thus, the effect is caused not by free radicals, but by products formed under their action. Stirring of irradiated H_2O_2 led to a decrease of signals proportional to the intensity of mechanical action, under the evolution of oxygen. The authors conclude therefrom that the effect observed is caused by dissolved oxygen. The curves in Fig. 1 would then correspond to the degree of O_2 oversaturation at the given H_2O_2 concentration. The authors mention L.L. Dekabrun and A.P. Purmal, and thank Yu. V. Gurikov for a discussion. There are 3 figures and 6 references: 4 Soviet and 2 US.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR (Radium Institute imeni V. G. Khlopin of the Academy of Sciences USSR)

SUBMITTED: June 21

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B004/B060

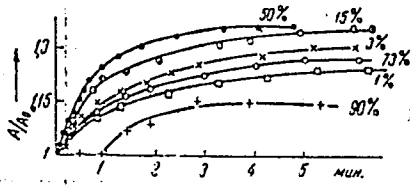

Fig.1

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BORODIN, P.M.; LEGIN, Ye.K.; SVENTITSKIY, Ye.N.; KHUSIDMAN, M.B.; SHCHERBAKOV, V.A.

Action of heavy water on the chemical shift of F^{19}. Zhur.strukt.khim. 4 no.2:266-267 Mr-Ap '63. (MIRA 16:5)

1. Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta.
(Deuterium oxide) (Flurine isotopes)
(Nuclear magnetic resonance and relaxation)

L 14698-66

ACC NR: AP6008247 SOURCE CODE: UR/0089/65/019/005/0433/0437

AUTHOR: Vdovenko, V. M.; Gurikov, Yu. V.; Legin, Ye. K.

ORG: none

63
13

TITLE: Cation hydration in heavy water

SOURCE: Atomnaya energiya, v. 19, no. 5, 1965, 433-437

TOPIC TAGS: heavy water, hydration, cation, enthalpy, aqueous solution, alkali metal, halide, free energy, chemical kinetics

ABSTRACT: An account is given of the use of the molecular-kinetic description of the two-layer model of hydration for the analysis of the isotopic differences of the free energy and enthalpy of solution in water and heavy-water solutions of alkali metal halides. The lifetime and distribution density of water molecules in the layer of secondary hydration are examined. It is shown that in heavy-water solutions dehydration of the ions occurs. It is established that the difference of free energy and enthalpy of solution in light and heavy water should increase with an increase of the cation radius, i.e., from Li^+ to Cs^+. The results obtained agree with experimental data. [NA]

SUB CODE: 07, 18, 20 / SUBM DATE: 28Jan65 / ORIG REF: 009 / OTH REF: 008

BVK

Card 1/1

UDC: 542.934: 546.212.02

2

LEGINOV, F.A. (Khabarovsk).

Dental filling with AKR-7 plastic. Stomatologiia no.5:47 '53.
(MLRA 7:1)
(Teeth--Diseases) (Plastics)

GOLJEVSCEK, M.; LEGISA, D.

Contribution to the problem of the application of the principles of aeration tunnels to gated outlet works. Vodoprivreda Jug 2 no.7/8: 162-166 '59. (EEAI 10:1)

1. Univerzitet u Ljubljani, Vodogradbeni laboratorij.
(Sluice gates) (Water) (Tunnels) (Water pipes)

PROHASKA, Boris, dr inz.; PREZELJ, Milan; LEGISA, Ivo

Thermal diffusion of liquids. Kemija u industriji 11 no.7: 379-384 Jl '62.

1. Tehnoloski fakultet, Sveuciliste u Zagrebu.

PROHASKA, Boris, dr inz.; PREZELJ, Milan; LEGISA, Ivo

Construction of various apparatus for thermal diffusion of liquids. Kemija u industriji 11 no.7:385-388 Jl '62.

1. Tehnoloski fakultet, Sveuciliste u Zagrebu.

LEGISA, Viktor, dr.

Pulmonary cysts. Tuberkuloza, Beogr. 6 no.2-3:146-148 Mar-June 54.

1. Institut za tuberkulozu Golnik (direktor prim. dr. Furlan)
(LUNGS, cysts)
(CYSTS
lungs)

LEGKAYA, L.P., mladshiy nauchnyy sotrudnik

Brief characterization of the geology of the limestone of the Oka and Serpukhov substages of the Lower Carboniferous in the Polotnyanyy, Rozhdestveno, Venev, and Gorenskoye deposits. Sbor. trud. NIIZHelezobetona no.3:42-49 '60. (MIRA 15:2)
(Limestone)

RAMZES, B. Ya., kand. geol.-mineral. nauk; URAL'SKIY, B.P., kand. geol.-mineral. nauk; LEGKAYA, L.P., mladshiy nauchnyy sotrudnik; CHUDNOVSKIY, V.M., inzh.

Method of controlling the quality of the raw material in limestone mining in the central regions of the country. Sbor. trud. NIIZHelezobetona no.8:52-67 '63 (MIRA 18:1)

RAMZIS, B.Ya., kand.geol.-mineral.nauk; LEGKAYA, L.P., inzh.

Gravel deposits are a source for obtaining high-strength aggregates. Sbor. trud. NIIZHelezobetona no.7:3-16 '62. (MIRA 16:1)

(Gravel) (Aggregates (Building materials))

LEGKAYA, L.P., inzh.

Effect of the structure and porosity of large grain aggregates (limestone rubble) on the strength of the concrete. Sbor. trud. NIIZHelezobetona no.8:146-151 '63 (MIRA 18:1)

Fracturing of carbonate rocks of the Lower Carboniferous C_1^{ck} C_1^{tr} of some structural and genetic types. Ibid.:152-161

LECKHIY, A. S., Prof. and PONAMAREV, F. G. Asst.
"Use of dry anti-tuberculosis vaccine."
SO: Vet. 28 (1), 1951, p. 50

Country	: USSR
Catogory	: Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi. R
Abs. Jour	: Ref Zhur-Biol., No 21, 1958, 96972
Author	: Legkiy, A. S.; Ostrovskaya, A. A.
Institut.	: Novocherkassk Zootechnical Institute of Vete-*
Title	: The Possibility for Animals to Recover from Tuberculosis.
Orig Pub.	: Tr. Novocherkasskogo zootekhn.-vet. in-ta, 1957, 10, 283-287
Abstract	: It is shown that in a considerable number of cases cattle recover from tuberculosis after being kept in isolators for 1-2 years. Cows that do not show clinical symptoms of tuberculosis 1-2 years after having entered the isolator and whose milk is free from tubercular bacteria should be subjected to tuberculinization; those reacting negatively should be kept in separate herds, because if negatively and positively reacting animals are kept together in herds, the
Card:	1/2

*rinary Sciences.

7

Country : USSR
Category : Diseases of Farm Animals.
Diseases Caused by Bacteria and Fungi. R
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96972
Author :
Institut. :
Title :

Orig Pub. :

Abstract : cured animals relapse into sickness as a result.

Card: 2/2

USSR/Diseases of Farm Animals - Diseases Caused by Viruses and Rickettsiae R-2

Abs Jour : Ref Zhur - Biol., No 10, 1958, 45371

Author : Legkiy, A.S.

Inst : Novocherkassk Zootechnical-Veterinary Institute.

Title : Serotherapy in Anaerobic (Malignant) Edemas in Animals.

Orig Pub : Tr. Novocherkasskogo zootekhn.-vet. in-ta, 1957, vyp. 10, 305-310.

Abstract : It was observed that in the treatment of horses affected by anaerobic edemas, the antigangrenous sera exerted a therapeuric effect in those cases where they were used at the appearance of the first symptoms of disease and in accordance with the causative agent which produced the edema. When the differentiation of the causative agent is not possible, the author recommends the administration

USSR/Diseases of Farm Animals - Diseases Caused by Viruses and Rickettsiae R-2

Abs Jour : Ref Zhur - Biol., No 10, 1958, 45371

of four sera in the following doses: anti-oedematiens 50-70 thous. antitixic units (AU), anti-v. septique 2.5-5 thous. AU, anti-perfringens 3-6 thous. AU, anti-histolyticus 3.25-6.5 thous. AU.

Card 2/2

BIBER, L.A., inzh.; LEGKIY, G.K., master; EL'KIND, Yu.M., kand.tekhn.nauk

Device for checking vibrations of turbine units and turbine pumps. (MIRA 11:10)
Elek. sta. 29 no.7:41-43 Jl '58.
(Turbines--Vibration)

SOV/143-59-5-11/19

24(6)
AUTHOR: Legkiy, V.M., Engineer

TITLE: Heat Transfer Factors and Aerodynamic Resistances of Compact Finned Tube Bundles in a Cross Flow

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Energetika, 1959, Nr 5, pp 98-107 (USSR)

ABSTRACT: The author presents the results of an investigation of thermal and aerodynamic characteristics of 18 types of finned tubes with rectangular and tapered fins. The investigation was performed under the guidance of Corresponding Member of the UkrSSR AS, Professor V.I. Tolubinskiy. The experimental set-up used for this investigation and the method of determining the heat transfer factors by the principle of regular temperature conditions was described in details in [Ref 9]. The processing of the experimental results was performed in the form of the criterion ratios

$$Nu=C_a \cdot Re^m \quad \text{and} \quad Eu=C_{\Delta p}(n+1)\,Re^p$$

Card 1/3

SOV/143-59-5-11/19

Heat Transfer Factors and Aerodynamic Resistances of Compact Finned Tube Bundles in a Cross Flow

A total of 47 tube bundles consisting of 6-8 tube rows was investigated for different tube arrangements. The results of the experimental investigation are shown in 1 table and 5 graphs. The comparison of the results obtained for the heat exchange of finned surfaces with data of other investigators is difficult because of the difference in the processing methods of the results. A.Z. Shcherbakov obtained results which are close to those obtained by the author of this paper. He further compares his experimental data with those of V.M. Antuf'yev and G.S. Beletskiy. He mentiones also the work of L.M. Kuz'menko and N.V. Kuznetsov and S.E. Turilin. As a result of the investigations the author obtained data for the thermal and aerodynamic calculations of narrow tube bundles with tapered and rectangular fins in the ranges of

$0.5 \div 1.0$; $\delta_{cp}=0.15 \div 0.4$

SOV/143-59-5-11/19

Heat Transfer Factors and Aerodynamic Resistances of Compact Finned Tube Bundles in a Cross Flow

The author show that the tapered fin profile is the most advantageous concerning engineering and economical viewpoints. The calculation of this type of tube fines permits a reduction of boiler water economizer dimensions by 40-45%. In those cases were the engineering and economical considerations are below the requirements of maximum compactness, the application of finned tubes with tapered fins of the profile $\frac{h}{d} = 0.7$; $\frac{\delta_{cp}}{d} = 0.22$ permits a reduction of the dimensions by 55-60%. There are 2 diagrams, 7 graphs, 2 tables and 9 Soviet references. This article was presented by the Kafedra kotel'nykh ustanovok (The Chair of Boiler Equipment)

ASSOCIATION: Kiyevskiy ordena Lenina politekhnicheskiy institut (Kiyev - Lenin Order - Polytechnic Institute)

SUBMITTED: November 10, 1958

Card 3/3

LEGKIY, V.M., Cand Tech Sci (diss) -- "Investigation of thermal emission and aerodynamic resistances of compact bundles of fin tubes". Kiev, 1960. 19 pp (Min Higher and Inter Spec Educ Ukr SSR, Kiev Order of Lenin Polytech Inst), 200 copies (KL, No 11, 1960, 133)

88235

S/096/61/000/003/006/C12
E194/E155

11,9000

AUTHORS: Tolubinskiy, V.I., Doctor of Technical Sciences, and Legkiy, V.M., Engineer

TITLE: The Heat Transfer of Compact Bundles of Tubes in Honeycomb Arrangement with Transverse External Flow

PERIODICAL: Teploenergetika, 1961, No. 3, pp. 53-56

TEXT: The following notation is used in this article: d = tube diameter; s_1 = transverse pitch, or distance between centre lines of successive tubes in a row across the direction of flow; s_2 = longitudinal pitch or distance in the direction of flow between the centre lines of tubes in successive rows; s'_2 = diagonal pitch, or distance between centres of neighbouring tubes, in successive rows; $A = (s_1/d - 1)/(s_2/d - 1)$. The heat transfer of tube bundles for which s_2/d is greater than 1 has been extensively studied but there is reason to suppose that if s_2/d is less than 1 a constriction effect may occur. The minimum transverse section for gas is then no longer on a plane perpendicular to the direction of incident flow but is in the plane of the diagonal pitch s'_2 and this may cut down the

Card 1/5

88235

S/096/61/000/003/006/012
E194/E155

The Heat Transfer of Compact Bundles of Tubes in Honeycomb Arrangement with Transverse External Flow

necessary dimensions of the heating surface. It was desired to check whether existing empirical formulae between the Nusselt and Reynolds criteria remain valid in this case. Fifteen arrangements of smooth tube bundles were tested, of which twelve had the constricted section described above. The tests were made in a closed-type wind tunnel of 288 x 280 mm cross section. The test procedure and instrumentation are described. Initial tests showed that the roughness of the calorimeter tubes used was not important. The results were worked out by a formula of the form:

$$Nu = C_{\alpha} Re^{n} \qquad (4)$$

The results, including tube bundle geometry, are given in Table 2. It will be noticed that in one case n = 0.62. This is because the geometry of this arrangement is such that it is a square and not a honeycomb tube bundle.

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The Heat Transfer of Compact Bundles of Tubes in Honeycomb Arrangement with Transverse External Flow

When A is greater than 2.0, that is, with constricted tube bundles, the results are in good agreement with those of Kay, London and Lo (Ref.6). The heat transfer of a 20-row bundle of tubes in honeycomb arrangement when A = 2.0 - 6.5 may be represented by the formula:

$$Nu = 0.235Re^{0.6}A^{0.55} \quad (5)$$

It is concluded that the parameter A, suggested by the All-Union Heat Engineering Institute, is useful and provides a satisfactory generalisation of available experimental data on heat transfer in tube bundles of this kind. The relationship $\log C_\alpha = f(\log A)$ is a smooth and steadily-rising function, increasing slowly for values of A less than 0.6 and rising rapidly when A is greater than 2.0. The complete curve may be adequately represented for practical purposes by sections of straight lines, formulae for which are given. The results show that tube bundles in close arrangement are more efficient than

Card 3/5

S/096/61/000/003/006/012
E194/E155

The Heat Transfer of Compact Bundles of Tubes in Honeycomb Arrangement with Transverse External Flow

hitherto supposed. The final forms of the expressions recommended for calculations on tube bundles of twenty rows are:

for $A > 1$

$$Nu = [0.296 + 0.065(A - 1)] \cdot Re^{0.6} \quad (9)$$

for $A < 1$

$$Nu = [0.296 + 0.032(A - 1)] Re^{0.6} \quad (10)$$

There are 6 figures, 2 tables and 6 references: 5 Soviet and 1 English.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut
(Kiyev Polytechnical Institute)

Card 4/5

TOLUBINSKIY, V.I., doktor tekhn.nauk, prof.; LEGKIY, V.M., kand.tekhn.nauk

Aerodynamic resistances of compact checkered clusters of pipes.
Teploenergetika 9 no.5:15-17 My '62. (MIRA 15:4)

1. Kiyevskiy politekhnicheskiy institut.
(Heat--Transmission) (Fluid dynamics)

LEGKIY, V.M., kand.tekhn.nauk; KOVAL', Yu.D., inzh.

Calculation of the heat absorption of rotary regenerative air preheaters with slotted packing. Izv. vys. ucheb. zav.; energ. 6 no.10:68-77 O '63. (MIRA 16:12)

1. Kiyevskiy ordena Lenina politekhnicheskiy institut. Predstavlena kafedroy kotel'nykh ustanovok.

TOLUBINSKIY, V.I., doktor tekhn.nauk, prof.; LEGKIY, V.M., kand.tekhn.nauk

Thermal and aerodynamic characteristics of two types of heating surfaces of regenerative air heaters. Energomashinostroenie 9 no.8:40-42 Ag '63. (MIRA 16:8)
(Boilers)

L 39492-65 EWT(l)/EWP(m)/EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EWA(d)/EPR/EWP(t)/
EWP(k)/FCS(k)/EWP(b)/EWA(c) Pd-1/Pf-4/Pr-4/Ps-4/Pu-4 JD/WW/HW
ACCESSION NR: AP5011720 UR/0096/64/000/011/0086/0088

AUTHOR: Legkiy, V. M. (Candidate of technical sciences); Ostrovskiy, Yu. N. (Engineer)

TITLE: Computation of heat transfer and aerodynamic drag of staggered groups of finned tubes

SOURCE: Teploenergetika, no. 11, 1964, 86-88

TOPIC TAGS: heat transfer, aerodynamic drag, pipe

ABSTRACT: Experimental data on the coefficients of heat transfer and aerodynamic drag of 32 compact checkered groups of tubes with trapeziform fins was previously published by V. M. Legkiy [Izv. vusov. Ser. "Energetika," No 5, 1959]. In the present paper, the profile and dimensions of these tubes are illustrated and nomograms for determining the coefficient of heat transfer by convection are given, as well as a curve for determining the coefficient of effectiveness of the fins E and the correction factor μ. A nomogram is given for computation of the aerodynamic drag of the groups of finned tubes. Orig. art. has: 1 figure, 4 formulas, and 5 graphs.

Card 1/2

L 39492-65
ACCESSION NR: AP5011720

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiev Polytechnical Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: TD, ME

NO REF SOV: 005 OTHER: 000 JPRS

Card 2/2

L 04815-67 EWP(m)/EWP(k)/EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6025426 (N) SOURCE CODE: UR/0143/66/000/007/0116/0120

AUTHOR: Malevich, Yu. A. (Engineer); Legkiy, V. M. (Candidate of technical sciences) 26 B

ORG: Lenin Polytechnic Institute, Kiyev (Kiyevskiy ordena Lenina politekhnicheskiy institut)

TITLE: Aerodynamic resistance of single finned tubes in a transverse flow of air / A

SOURCE: IVUZ. Energetika, no. 7, 1966, 116-120

TOPIC TAGS: aerodynamic theory, metal tube

ABSTRACT: The article gives the results of an experimental investigation of the aerodynamic resistance of 62 single tubes with transverse flat fins. The experiments were made in an open aerodynamic tube. To the inlet section with a diameter of 0.14 meters there was connected a transition section which transformed the cylindrical section into a rectangular section with dimensions of 0.14 x 0.71 meters. The blower developed a pressure up to 2000 newtons/m^2, and had a capacity up to 500 m^3/hr. Six different working sections were used in the tests; their dimensions are shown in a table. The aerodynamic resistance was

Card 1/2 UDC: 532.501.312:532.542

measured under isothermal conditions at an air temperature from 18-25°C. The data were correlated in dimensionless form by the expression

$$Eu = C\,Re^{-n}. \qquad (1)$$

where Eu = $\Delta P / w^2$ is the Euler number; Re = wL/ν is the Reynolds number; ΔP is the drop in the statistical pressure in the section occupied by the finned surface, newtons/m^2; w is the flow velocity in the transverse axis of the cross section of the finned tube, meters/sec; L is the determining geometric dimension, meters; ρ and ν are the density and the coefficient of the kinematic viscosity or the air, respectively, kg/m^3 and m^2/sec; C and n are constants, determined experimentally. The article arrives at an empirical expression for the aerodynamic resistance for finned tubes in the following form:

$$Eu = 0,7\left(\frac{\Delta}{d}\right)^{-0,65} Re^{-0,16}. \qquad (2)$$

Orig. art. has: 2 formulas, 3 figures and 2 tables.

SUB CODE: 20/ SUBM DATE: 02Feb66/ ORIG REF: 006/ OTH REF: 001

Card 2/2 gd

LEGKODIMOVA, K.V.; GRIGOR'YAN, I.P.

Preliminary data on Q fever in Maritime Territory; authors' abstract. Zhur.mikrobiol.epid. i immun. 28 no.7:147-148 Jl '57. (MIRA 10:10)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny i Krayevoy sanitarno-epidemiologicheskoy stantsii.
(MARITIME TERRITORY--Q FEVER)

LEGKODIMOVA, K.V.

Some data on typhus in the Maritime Territory. Zhur. mikrobiol. epid. i immun. 29 no.11:75-78 N '58. (MIRA 12:1)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(TYPHUS, epidemiol.
(Rus))

LEGKODIMOVA, K.V.; SOMOV, G.P.

Data on clinical characteristics, etiology, and epidemiology of tick-borne exanthematous typhus in the Kalinin District of the Territory. Zhur.mikrobiol., epid. i immun. 32 no.10:112-117 O '61. (MIRA 14:10)

1. Iz Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(KALININ DISTRICT (MARITIME TERRITORY—TYPHUS FEVER))

LEGKODIMOVA, K.V.

Some data on Q fever in the Maritime Territory. Trudy Vlad[illegible]
no.2:56-57 '62. (MIRA 18:5)

1. Iz Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.

LEGKODIMOVA, K.V.

Epidemiological characteristics of tick-borne Asian rickettsiosis in the central regions of the Maritime Territory. Trudy Len. inst. epid. i mikrobiol. 25:170-177 '63.

(MIRA 17:1)

1. Iz laboratorii rikketsiozov Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny i otdela osobo opasnykh infektsiy Leningradskogo instituta epidemiologii i mikrobiologii imeni Pastera.

LEGKODIMOVA, K.V.; SOMOV, G.P.

Some biological properties of the cultures of Dermacentroxenus sibiricus isolated in the central regions of the Maritime Territory. Trudy Len. inst. epid. i mikrobiol. 25:178-184 '63. (MIRA 17:1)

1. Iz laboratorii rikketsiozov Vladivostokskogo instituta epidemiologii, mikrobiologii i gigiyeny i otdela osobo opasnykh infektsiy Leningradskogo institut epidemiologii i mikrobiologii imeni Pastera.

LESKODIMOVA, K.V.; SOMOV, G.P.

Materials on clinical characteristics, etiology and epidemiology of tick-borne typhus fever in Iman District of the Maritime Territory. Trudy VladIEMG no.[illegible]50-56 '62. (MIRA 18:3)

1. Iz Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny.

L 62496-65 EWA(j)/EWA(b)-2/EWT(1) JK

ACCESSION NR: AP5020090 UR/0016/65/000/008/0039/0043
576.851.71.095.6

AUTHOR: Somov, G. P.; Shapiro, M. I.; Legkodimova, K. V.

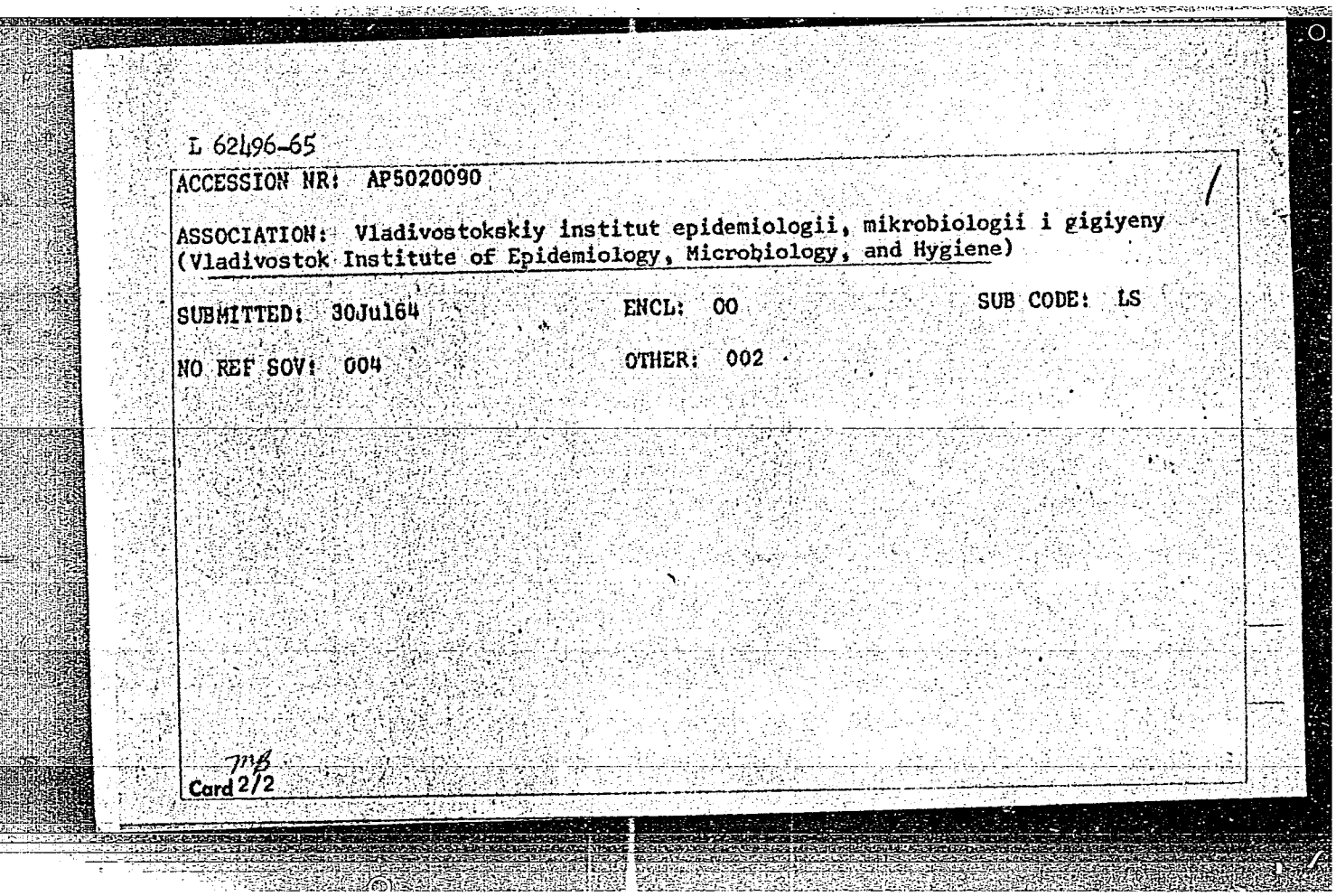
TITLE: Reproduction of the rickettsia *D. sibiricus* in human embryo kidney tissue studied by the fluorescent antibody method

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 8, 1965, 39-43

TOPIC TAGS: rickettsial disease, fluorescence, microbiology, antibody, biologic reproduction

ABSTRACT: The authors used the method of fluorescent antibodies to study the reproduction of *D. sibiricus* in monolayer trypsinized human embryo kidney cells. They found the technique superior to the ordinary staining methods chiefly because it facilitates the identification of even solitary rickettsias in cells. They recommend combining the tissue culture method with fluorescent microscopy as a means of investigating certain aspects of the pathogenesis of rickettsioses and of quickly determining the species of rickettsias isolated from various objects. Orig. art. has: 1 figure.

Card 1/2



L 62496-65

ACCESSION NR: AP5020090

ASSOCIATION: Vladivostokskiy institut epidemiologii, mikrobiologii i gigiyeny (Vladivostok Institute of Epidemiology, Microbiology, and Hygiene)

SUBMITTED: 30Jul64 ENCL: 00 SUB CODE: LS

NO REF SOV: 004 OTHER: 002

mb

Card 2/2

SOMOV, G.P.; SHAPIRO, M.I.; LEGKODIMOVA, K.V.

Study of the reproduction of the rickettsia Dermacentroxenus sibericus in human embryo renal tissue culture using the method of fluorescent antibodies. Zhur. mikrobiol., epid. i immun. 42 no.8:39-43 Ag '65. (MIRA 18:9)

1. Vladivostokskiy institut epidemiologii, mikrobiologii i gigiyeny.

S/762/61/000/000/009/029

AUTHORS: Chistyakov, Ye.P., Bochvar, G.A., Legkodukh, A.M.

TITLE: Determination of the crystallization interval of titanium alloys by means of vacuum etching in a variable temperature field.

SOURCE: Titan v promyshlennosti; sbornik statey. Ed. by S.G. Glazunov. Moscow, 1961, 107-111.

TEXT: The paper describes preliminary determinations by the authors, under the guidance of V.I. Dobatkin, of the solidus (S) temperature (T) of a number of Ti alloys by a high-temperature (HT) determination of the microstructure of a polished section in a vacuum. Determination of the liquidus (L) was made by the breaking-off of a drop from the end of the specimen. Binary Ti-Ni alloys (with up to 10% Ni), Ti-Mn alloys (up to 15% Mn) and several industrial Ti alloys were investigated. The tests were performed in a resistance-type TBB-2A (TVV-2A) vacuum furnace which exhibited vertical temperature variations, but only a small sectionwise T gradient. Tests were performed in a portion of the furnace cavity in which the T decreased linearly with height. The specimen was 170 mm long and had an 8-mm square section. One long face was ground to permit structural determination by vacuum etching. One tip was sharpened to a 20-mm long frustum of a cone. This specimen rod was suspended so that the sharpened tip hung down into the max-T zone, whereas the upper end reposed in the less hot upper region of the furnace. Three thermocouples covered the length of the rod. Vacuum: 10^{-4} to 10^{-5} mm Hg. The rod was

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"homogenized" at 1400-1500°C for 30 min, whereupon the furnace T was raised until a drop broke off the bottom cone (end of test). The T reading of the bottom thermocouple was taken to be the L T, an approximation which failed to take the surface tension into account and did not eliminate the possibility that a break-off of the drop at T's somewhat below the L T could occur in alloys that crystallize over a broad T interval. 70- to 100-x microscopic study of the cooled specimen, after vacuum etching, permitted determination of the S boundary from the inception of the grain-boundary disintegration or the appearance of the liquid phase within the grains. The distance between the S boundary on the specimen and the break-off point of the drop, plotted on the vertical T distribution in the furnace as obtained from the 3 sets of thermocouples on the rod, yielded the T at which the liquid phase first appears, i.e., the S T. Microstructural photographs of the various regions of a rod are shown. Test data obtained on systematic series of the above-cited Ti-Ni and Ti-Mn alloys are plotted versus %Ni and %Mn. The resulting curves are lower than those of H. Margolin and D.J.Maykuth (J. of Met., v.5, no.2, 1953) obtained in the graphite crucible which were less accurate in the determination of the appearance of the liquid phase and more susceptible to errors due to undesirable impurities. Similar S and L T determinations were performed and are tabulated for the alloys OT4, BT3-1 (VT3-1), BT5-1 (VT5-1), and BT6 (VT6). There are 4 figures, 1 (unnumbered) table, and the 1 English-language U.S. reference cited above.

ASSOCIATION: None given.

Card 2/2

L 32251-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) IJP(c) MJW/JD

ACCESSION NR: AP5005107 S/0129/65/000/002/0050/0052

AUTHOR: Khorev, A. I.; Glazunov, S. G.; Legkodukh, A. M.

TITLE: Strengthening VT15 alloy by heat treatment

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 2, 1965, 50-52

TOPIC TAGS: titanium alloy, alloy heat treatment, optimum heat treatment, alloy strength, alloy ductility, VT15 alloy

ABSTRACT: To determine the optimum heat treatment for VT15 titanium alloy (7.08% Mo, 11.19% Cr, 3.15% Al), alloy bars forged from 40-kg ingots were quenched from 800C (the β-region) or from 680C (the α + β region) and then aged at temperatures ranging from 350 to 600C for 25 hr. The alloy quenched from the α + β region reached a maximum strength of 160 kg/mm^2 with aging at 450C; the maximum tensile strength of the alloy quenched from the β-region, 153 kg/mm^2, was obtained with aging at 500C (see Fig. 1 of the Enclosure). The decomposition of the α + β alloy occurs at lower aging temperature because of the presence of the α-phase formed during pre-quench heating. At maximum strength the elongation of the alloy quenched from α + β region was 4 times higher than that of the β-alloy. This is explained by a more uniform aging. Aging at higher temperatures lowers the strength

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L 32251-65

ACCESSION NR: AP5005107

but does not raise the ductility. Thus, the best combination of mechanical properties of VT15 alloy is achieved by quenching from the temperature of the $\alpha + \beta$ region (680C) with subsequent aging at 450—500C. Orig. art. has: 2 figures. [MS]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: MM, IE

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3203

Card 2/3

L 32251-65

ACCESSION NR: AP5005107 ENCLOSURE: 01

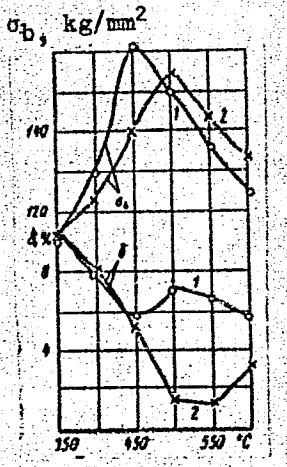

Fig. 1. Effect of the quenching and aging temperature on mechanical properties of VT15 alloy

1 - Quenching from 680C; 2 - quenching from 800C.

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L 57506-65 EWT(m)/EWP(w)/EPF(c)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c)
IJP(c) MJW/JD/WB

ACCESSION NR: AP5013163 UR/0129/65/000/005/0057/0059
669.295:621.9-419

32
B

AUTHOR: Glazunov, S. G.; Legkodukh, A. M.

TITLE: Singularities in the heat treatment of clad VT15 alloy

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1965, 57-59

TOPIC TAGS: titanium alloy, metal cladding, metal hardness, metal mechanical property, metal aging

ABSTRACT: Cladding of Ti alloys for protection against oxidation and hydrogenation is explained. The effects of the clad layer on the heat treatment of VT15 are studied, especially with regard to the influence of the cladding on the cooling rates, etc. Data are given for mechanical properties of clad VT15 as a function of annealing temperature and speed of cooling. Various cooling rates were produced by quenching in water, air, and furnace cooling. The β-phase boundary was found to be 710°C for heating times of 15 min or more. Quenched microstructural samples were used to determine this precisely. Heating above 900°C was found to be detrimental to ductility on account of the resultant grain growth. The β+α+β transformation temperature

Card 1/2

L 57506-65

ACCESSION NR: AP5013163

could be shifted by varying the rate of quenching. For example the point could be raised 10°C by air quenching rather than water quenching. If the annealing temperature is below about 800°C the microstructure shows signs of orientation and unrecrystallized regions. Also for very slow cooling (furnace cooling) the microstructure shows signs of β-phase decomposition. Thus the experiments indicate that in order to fix the β-phase, and at the same time obtain maximum mechanical properties, the annealing temperature should be about 800°C and the cooling rate greater than 3°/min. Aging experiments for clad and unclad VT15 at temperatures from 450 to 600°C for varying times resulted in β-phase decomposition with increases in hardness. The results show that for the clad alloy, maximum hardness is obtained at 500°C, while for the unclad the maximum is at 550°C. Results are given for different quench temperatures. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/2

LEGKODUKH, I. G., inzh.; LIKHACHEV, L. Ya., inzh.

Degassing during preliminary wetting of a coal seam through short holes. Ugol' 38 no.4:54-55 Ap '63. (MIRA 16:4)

1. Vostochnyy nauchno-issledovatel'skiy institut po bezopasnosti rabot v gornoy promyshlennosti.

(Mine gases)

LEGKONOGOV, V.A.

Neurofibromatosis as revealed by data of the neurological department of the Maritime Territory Hospital during 12 years (from 1950 to February 1961). Vop. psikh. nevr. no.10:84-89 '64 (MIRA 18:12)

1. Nevrologicheskoye otdeleniye (zav. - R.M.Gurariy) Primorskoy krayevoy bol'nitsy, g. Vladivostok.

TSIRLINA, D.L., prof.; LEGKOPUDOVA, A.I.

Electrolytic burns in miners in the Karaganda coal basin. Khirurgiia 35 no.7:30-33 Jl '59. (MIRA 12:12)

1. Iz kliniki obshchey khirurgii (zav. - prof. D.L. TSirlina) Karagandinskogo meditsinskogo instituta (dir. - dots. P.M. Pospelov).
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LEGKOPUDOVA, A.I. (Karaganda, Novyy gorod, bul'var Mira, d.9, kv.34)

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(BURNS AND SCALDS)

LEGOSTAYEV, Nikolay Nikitovich; MONASTYRSKAYA, M.S., kand. tekhn. nauk, retsenzent; POLINSKIY, S.L., nauchn. red.

[Technology of artificial leather on a fabric base] Tekhnologiia iskusstvennoi kozhi na tkanevoi osnove. Moskva, Legkaia industriia, 1965. 267 p. (MIRA 18:3)

GRIGOROV, N.D., kand. ekon. nauk; DEMIDOVA, L.A., kand. ekon. nauk; LEGKOSTUP, L.M., kand. ekon. nauk; MAKEYEV, T.M., kand. ekon. nauk; TERESHINA, N.Ya., kand. ekon. nauk; LIZINA, A.I., kand. ist. nauk; BURDAKOVA, A.P.; BELYAYEV, Yu.B., prepodavatel' vysshikh uchebnykh zavedeniy; LYUBIN, V.A., prepodavatel' vysshikh uchebnykh zavedeniy; IVANOV, N.A., lektor; KUZ'MICHEV, V.S., lektor; SUBBOTIN, P.M., lektor; RAPPOPORT, G., red.; GRIN', Ye., tekhn. red.

[Development of the economy and culture of the Altai Territory during 40 years of the Soviet regime] Razvitie ekonomiki i kul'tury Altaiskogo kraia za 40 let sovetskoi vlasti. Barnaul, Altaiskoe knizhnoe izd-vo, 1957. 229 p. (MIRA 11:5)

1. Zaveduyushchiy krayzdravotdelom Altayskogo kraya (for Burdakova).
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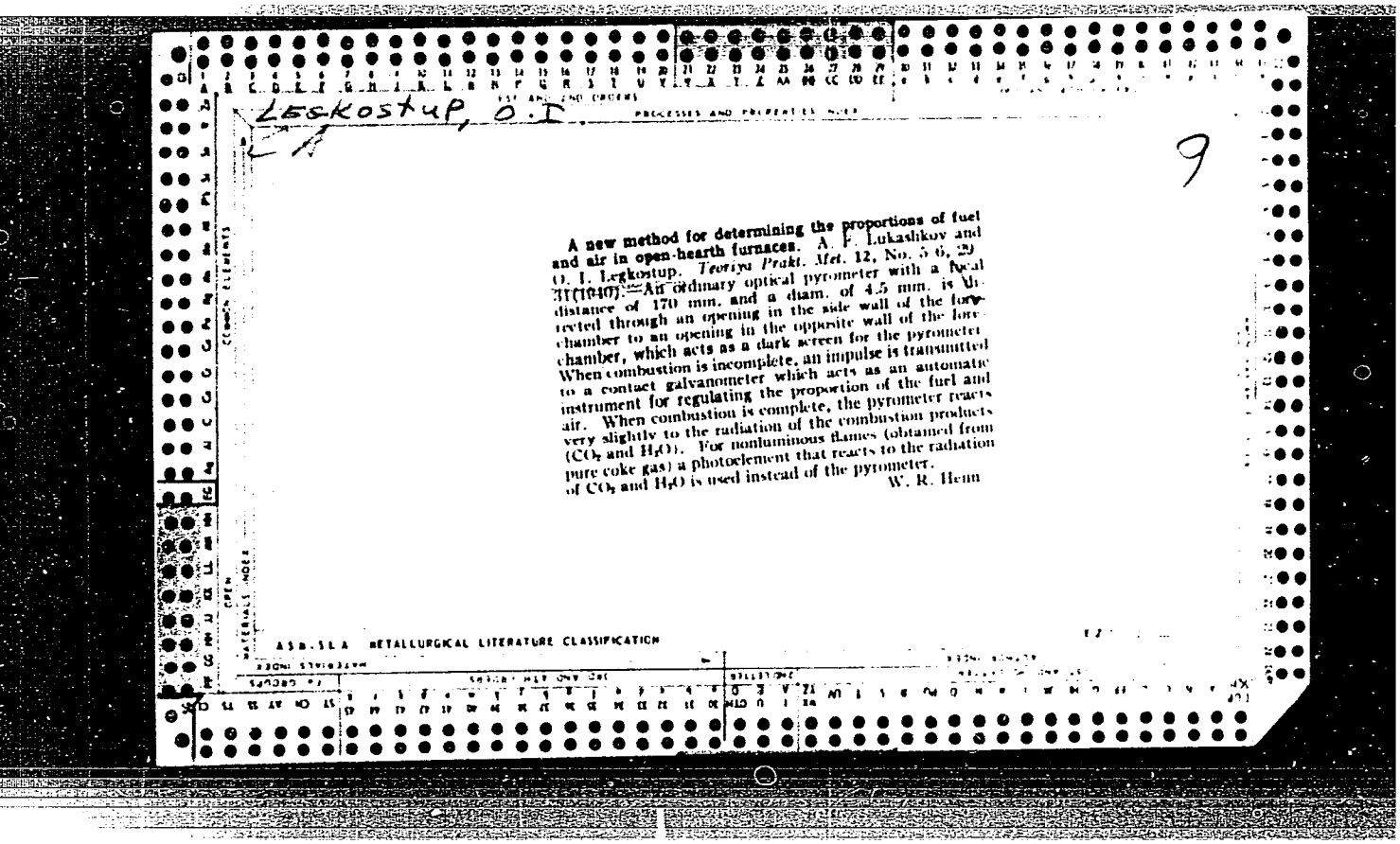

Lesk ostup, O. I

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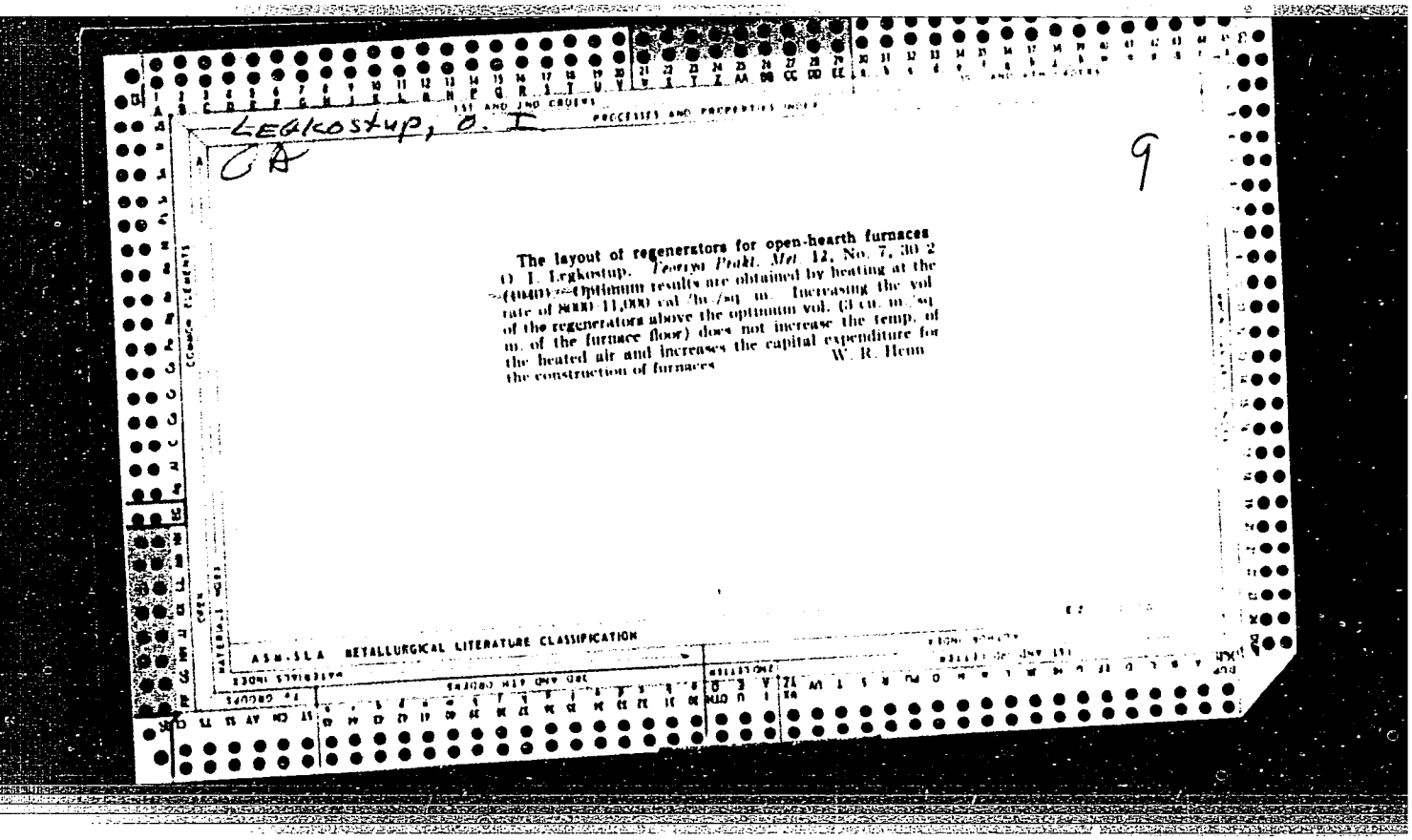
A new method for determining the proportions of fuel and air in open-hearth furnaces. A. F. Lukashikov and O. I. Legkostup. *Teoriya Prakt. Met.* 12, No. 5-6, 29-31(1940).—An ordinary optical pyrometer with a focal distance of 170 mm. and a diam. of 4.5 mm. is directed through an opening in the side wall of the fore-chamber to an opening in the opposite wall of the fore-chamber, which acts as a dark screen for the pyrometer. When combustion is incomplete, an impulse is transmitted to a contact galvanometer which acts as an automatic instrument for regulating the proportion of the fuel and air. When combustion is complete, the pyrometer reacts very slightly to the radiation of the combustion products (CO_2 and H_2O). For nonluminous flames (obtained from pure coke gas) a photoelement that reacts to the radiation of CO_2 and H_2O is used instead of the pyrometer.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Legkostup, O. I.

CA

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The layout of regenerators for open-hearth furnaces. O. I. Legkostup. *Tsvetn. Probl. Met.* 12, No. 7, 30-2 (1940). Optimum results are obtained by heating at the rate of 8000-11,000 cal./hr./sq. m. Increasing the vol. of the regenerators above the optimum vol. (3 cu. m./sq. m. of the furnace floor) does not increase the temp. of the heated air and increases the capital expenditure for the construction of furnaces. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

LEGKOSTUP, O.I.

42318. LEGKOSTUP, O.I.- Izucheniye Konstruktsii Konverterov malogo bessemerovaniya na modeli. Nauch. trudy (Dnepropetr. metallurg. in-t im Stalina) VYP 14, 1948, s 73-83.

SO: Letopis'Zhurnal'nykh Statey, Vol. 47, 1948.

LEGKOSTUP, O. I.

"Investigating the Process of Side Blowing in Converters." Cand Tech Sci, Dnepropetrovsk Metallurgical Inst, Dnepropetrovsk, 1953. (RZhKhim, No 23, Dec 54)

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SO: Sum. No. 556, 24 Jun 55

LAPITSKIY, Vladimir Iosifovich, prof., doktor tekhn.nauk; STUPAR', Nikolay Ivanovich; LEGKOSTUP, Olimpiada Ivanovna; POZDNYAKOVA, G.L., red. izd-va; KARASEV, A.I., tekhn.red.

[Metallurgy of steel] Metallurgiia stali; obshchii kurs. Pod red. V.I.Lapitskogo. Moskva, Metallurgizdat, 1963. 327 p. (MIRA 16:7)

(Steel--Metallurgy)

LAPITSKIY, V.I., doktor tekhn. nauk; KONOVALOV, V.S., kand. tekhn. nauk; LAYKO, V.G., inzh.; LEGKOSTUP, O.I., inzh.; PATLAN', Ye.F., inzh.

Effect of the technology of making and pouring steel on the formation of internal laps in rolled pipe. Met. i gorno-rud. prom. no.5:17-18 S-O '63. (MIRA 16:11)

1. Dnepropetrovskiy metallurgicheskiy institut (for Lapitskiy, Konovalov). 2. Truboprokatnyy zavod im. K. Libknekhta (for Layko, Legkostup, Patlan').

KONOVALOV, V.S.; LAPITSKIY, V.I.; LEGKOSTUP, O.I.; LYSENKO, I.V.; OKHOTSKIY, V.B.; KHOLYAVKO, Z.I.

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1. Dnepropetrovskiy metallurgicheskiy institut.

LYSENKO, I.V.; LEGKOSTUP, O.I.

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1. Dnepropetrovskiy metallurgicheskiy institut.

LAPITSKIY, V. I.; KONOVALOV, V. S.; KIRSANOV, V. M.; BUGRIYENKO, V. A.; Prinimali uchastiye: LEGKOSTUP, O. I.; PATLAN', Ye. F.; LAYKO, B. G.; FRUMKIN, A. P.; GONCHAROV, G. P.

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1. Dnepropetrovskiy metallurgicheskiy institut.

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